



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,379	02/06/2004	Osamu Kozakai	248508US6X	6778
22850	7590	06/26/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				SAMS, MATTHEW C
ART UNIT		PAPER NUMBER		

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/772,379	KOZAKAI ET AL.
	Examiner Matthew C. Sams	Art Unit 2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 February 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)              |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____.  |

## DETAILED ACTION

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Jalloul et al. (US-5,440,317 hereafter, Jalloul).

Regarding claim 1, Jalloul teaches a portable wireless apparatus (Fig. 1 [11]) comprising a first radiating means (Fig. 2), a second radiating (Fig. 2 [25]) means having about half electrical length of said first radiating means and provided so as to correspond the first radiating means from about center to one end of the first radiating means in parallel with leaving prescribed space (Fig. 2), connecting means for electrically connecting the one end of the first radiating means and one end of the

second radiating means facing the one end of the first radiating means and a feeding means for feeding to around a center of the first radiating means and the other end of the second radiating means so that the first radiating means and the second radiating means operate as an antenna. (Col. 2 line 43 through Col. 3 line 3)

Regarding claim 2, Jalloul teaches the second radiating means has an electrical length of  $\frac{1}{4}$  wavelength of a prescribed frequency. (Col. 2 line 59 through Col. 3 line 3)

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jalloul in view of Yamamoto. (US-6,906,677 hereafter, Yamamoto).

Regarding claim 3, Jalloul teaches the limitations of claim 1 above including the second radiating means contains a cavity and the first radiating means is in the center (Fig. 2), but differs from the claimed invention by not explicitly reciting the first radiating means is a plate, the second radiating means is a box with an open end.

In an analogous art, Yamamoto teaches an antenna with a first radiating means is a plate (Fig. 1A [15]) in a second radiating means (Fig. 1A) that is a box with an opening. (Fig. 1A [16 & 17] and Col. 9 line 41 through Col. 10 line 16) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to

implement mobile device of Jalloul after modifying it to incorporate the plate and box of Yamamoto. One of ordinary skill in the art would have been motivated to do this since using plates allows for a wider frequency reception range and it can be smaller. (Col. 3 line 52 through Col. 6 line 9)

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jalloul in view of Chen (US 2002/0024474 hereafter, Chen).

Regarding claim 4, Jalloul teaches the limitations of claim 1 above including one surface of the first radiating means is parallel to one surface of the second radiating means (Fig. 2), but differs from the claimed invention by not explicitly reciting the first and second radiating means are plates.

In an analogous art, Chen teaches a first and second radiating means that are plates. (Fig. 4 and Pages 1-2 [0019-0021]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the mobile telephone of Jalloul after modifying it to incorporate the radiating plates of Chen. One of ordinary skill in the art would have been motivated to do this since the antenna requires less space and reduces circuit cost. (Page 2 [0024])

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jalloul in view of Chen and Yamamoto.

Regarding claim 5, Jalloul teaches a portable wireless apparatus (Fig. 1 [11]) having a first radiating means (Fig. 2), a second radiating (Fig. 2 [25]) means having about half electrical length of said first radiating means and a powering means for feeding to around a center of the first radiating means and the other end of the second

radiating means so that the first radiating means and the second radiating means operate as an antenna. (Col. 2 line 43 through Col. 3 line 3 and Fig. 2) Jalloul differs from the claimed invention by not explicitly reciting a conductor board including a circuit board (Chen Page 2 [0020]), a shield case with an opening at the top and electrically connected to each other.

In an analogous art, Chen teaches a first and second radiating means that are plates made of circuit boards. (Fig. 4 and Pages 1-2 [0019-0021]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the mobile telephone of Jalloul after modifying it to incorporate the radiating plates of Chen. One of ordinary skill in the art would have been motivated to do this since the antenna requires less space and reduces circuit cost. (Page 2 [0024])

Jalloul in view of Chen differs from the claimed invention by not explicitly reciting a shield case with an opening at the top.

In an analogous art, Yamamoto teaches an antenna with a first radiating means is a plate (Fig. 1A [15]) in a second radiating means (Fig. 1A) that is a box with an opening. (Fig. 1A [16 & 17] and Col. 9 line 41 through Col. 10 line 16) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement mobile device of Jalloul in view of Chen after modifying it to incorporate the plate and box of Yamamoto. One of ordinary skill in the art would have been motivated to do this since using plates allows for a wider frequency reception range and it can be smaller. (Col. 3 line 52 through Col. 6 line 9)

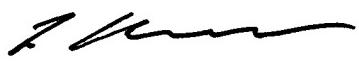
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCS  
6/15/2006



LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER